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AND ASSOCIATES INC.

PROJECT MEMORANDUM

DATE: May 1, 2013
FROM: Steven Harrison, PE – David Evans and Associates, Inc.
TO: South Cooper Mountain Technical Advisory Committee
CC: South Cooper Mountain Project Management Team
SUBJECT: **Sanitary Sewer Existing Conditions**
PROJECT: **South Cooper Mountain Concept and Community Plans**
City of Beaverton #2752-13B
DEA PROJECT NO: APGI0000-0002

Executive Summary

Information on the existing sanitary sewer system was gathered from the City of Beaverton and Clean Water Services. Their mapped files were used to establish an inventory of existing publicly owned sanitary conveyance and pump station facilities and to identify potential connection points for service to the study area.

The South Cooper Mountain Existing Sanitary Sewers and Connections maps show the locations of existing facilities and potential connection points within and adjacent to the study area.

The majority of North Cooper Mountain is developed with existing single family residential homes. These residential lots are currently utilizing septic systems for sanitary sewage disposal. There are several potential connection points to the north and east of this area.

The majority of the Urban Reserve Area is undeveloped with the exception of “Cooper Mountain Nature Park,” single family rural residential homes near SW 175th Avenue, Winkelman Park, and Tualatin Valley Fire and Rescue Station 69 along 175th Avenue.

The residential lots are currently using septic systems for sanitary sewage disposal. There are several potential connection points to the north and east of this area.

The South Cooper Mountain Annexation Area is undeveloped except for a few farm homes. There are several potential connection points to the east and south of this area.

Project Overview

The South Cooper Mountain Concept Plan will establish a vision that serves as a long-term guide for future growth and development of the South Cooper Mountain area. The Concept Planning process provides an opportunity to identify long term needs of the area and proactively address future challenges. This process will recognize the unique needs of the three distinct subareas (North Cooper Mountain, the Urban Reserve Area, and the South Cooper Mountain Annexation Area) while developing a holistic understanding of how the three areas could integrate and grow sustainably. The concept plan area totals 2,290 acres.

Community plans identifying appropriate comprehensive plan and zoning designations that implement the overall vision in the concept plan will be developed for the areas that are currently within the Urban Growth Boundary. The South Cooper Mountain Annexation Area Community Plan will designate specific areas for a range of housing types and densities, commercial and civic uses, and parks; preserve natural resources; provide for green infrastructure; and plan for new utilities, streets, trails and

paths. The North Cooper Mountain Community Plan will reflect the needs of current residents in this already developed area, and result in an appropriate plan for the area's future. Planning for the Urban Reserve Area will guide how best to protect natural areas and Cooper Mountain Nature Park, where future urban development may occur, and where connecting streets, water lines, and other utilities should be located. A Finance Plan will identify realistic strategies for paying for infrastructure to serve the area.

Introduction

This memo provides a summary of existing sanitary sewer infrastructure within and adjacent to the Urban Growth Boundary (UGB) area. Information was gathered from the City of Beaverton (City) and Clean Water Services (District) to establish an available inventory of sanitary sewer infrastructure and to identify potential connection points for service to the study area.

The District and the City have sanitary sewer infrastructure systems adjacent to the study area. The City owns and maintains the systems located within city limits.

There are three sub-areas defined in this study. They are "North Cooper Mountain (NCM)," "Urban Reserve Area (URA)," and "South Cooper Mountain Annexation Area (SCMAA)" as shown on the attached map, Sanitary Sewer Existing Conditions. The map titled Sanitary Sewer Connections shows the potential location where new service within these three areas could be connected to existing sewers. The tables below provide more information on these potential connection points.

North Cooper Mountain

The majority of NCM sub-area is developed with existing single family residential homes. These residential lots are currently utilizing septic systems for sanitary sewage disposal.

Within SW Gassner Road, along the northern boundary of the study area, there are the following sanitary sewer facilities:

STRUCTURE	LOCATION	PIPE SIZE inches	FULL FLOW CAPACITY cfs	DEPTH feet
CWS MH#804947	SW Squire Drive Intersection	8	0.94	8.1
CWS MH#804929	SW Valiant Drive Intersection	8	0.94	5.6
CWS MH#55823	SW 195 th Place Intersection	8	3.80	8.7
CWS MH#23296	150' west of SW Winslow Drive	8	3.35	12
CWS MH#23513	100' east of SW Winslow Drive	8	1.13	5
CWS MH#23514	178' east of SW Winslow Drive	8	1.13	6
CWS MH#23297	300' east of SW Winslow Drive	8	1.13	8
CWS MH#802653	260' west of SW 185 th Avenue	8	0.92	5.7

Within SW Mayberry Place there are the following sanitary sewer facilities:

STRUCTURE	LOCATION	PIPE SIZE inches	FULL FLOW CAPACITY cfs	DEPTH feet
CWS MH#63407	SW Florendo Lane Intersection	8	0.94	8.5
CWS MH#63408	120' south of the Florendo Lane intersection	8	0.94	6.6
CWS MH#804575	SW Jeremy Street Intersection	8	0.84	3.3

Urban Reserve Area

There is no sanitary sewer infrastructure located in SW Grabhorn Road or SW Tile Flat Road along the western boundary of the study area. Within SW Weir Road, along the northern boundary of the sub-area, there are the following sanitary sewer facilities:

STRUCTURE	LOCATION	PIPE SIZE inches	FULL FLOW CAPACITY cfs	DEPTH feet
COB MH#821836	SW LedgeStone Drive Intersection	8	0.84	16
COB MH#821824	250' east of SW LedgeStone Dr Intersection	8	0.84	6
COB MH#84507	200' east of SW Mt. Adams Dr Intersection	8	0.84	9.3

Along the eastern boundary of the sub-area, there are the following sanitary sewer facilities:

STRUCTURE	LOCATION	PIPE SIZE inches	FULL FLOW CAPACITY cfs	DEPTH feet
COB MH#87010	700' north of SW High Hill Lane/boundary	8	0.84	7.9
COB MH#88249	255' south of SW High Hill Lane/boundary	8	0.84	6.9
COB MH#88337	Near intersection of SW Cormorant Dr/ SW Avocet Ct.	8	0.84	7.0
COB MH#87913	150' south of SW Sandering Ct	8	0.84	7.4

South Cooper Mountain Annexation Area

Within recent subdivision north of SW Scholls Ferry Road and west of SW Loon Drive, at the southeast corner of the sub-area, there are the following sanitary sewer facilities:

STRUCTURE	LOCATION	PIPE SIZE inches	FULL FLOW CAPACITY cfs	DEPTH feet
COB MH#7358	North boundary of Churchill Forest Subdivision	unknown	unknown	unknown
COB MH#7359	East boundary of Churchill Forest Subdivision	unknown	unknown	unknown
COB Lateral	East boundary of Churchill Forest Subdivision	unknown	unknown	unknown

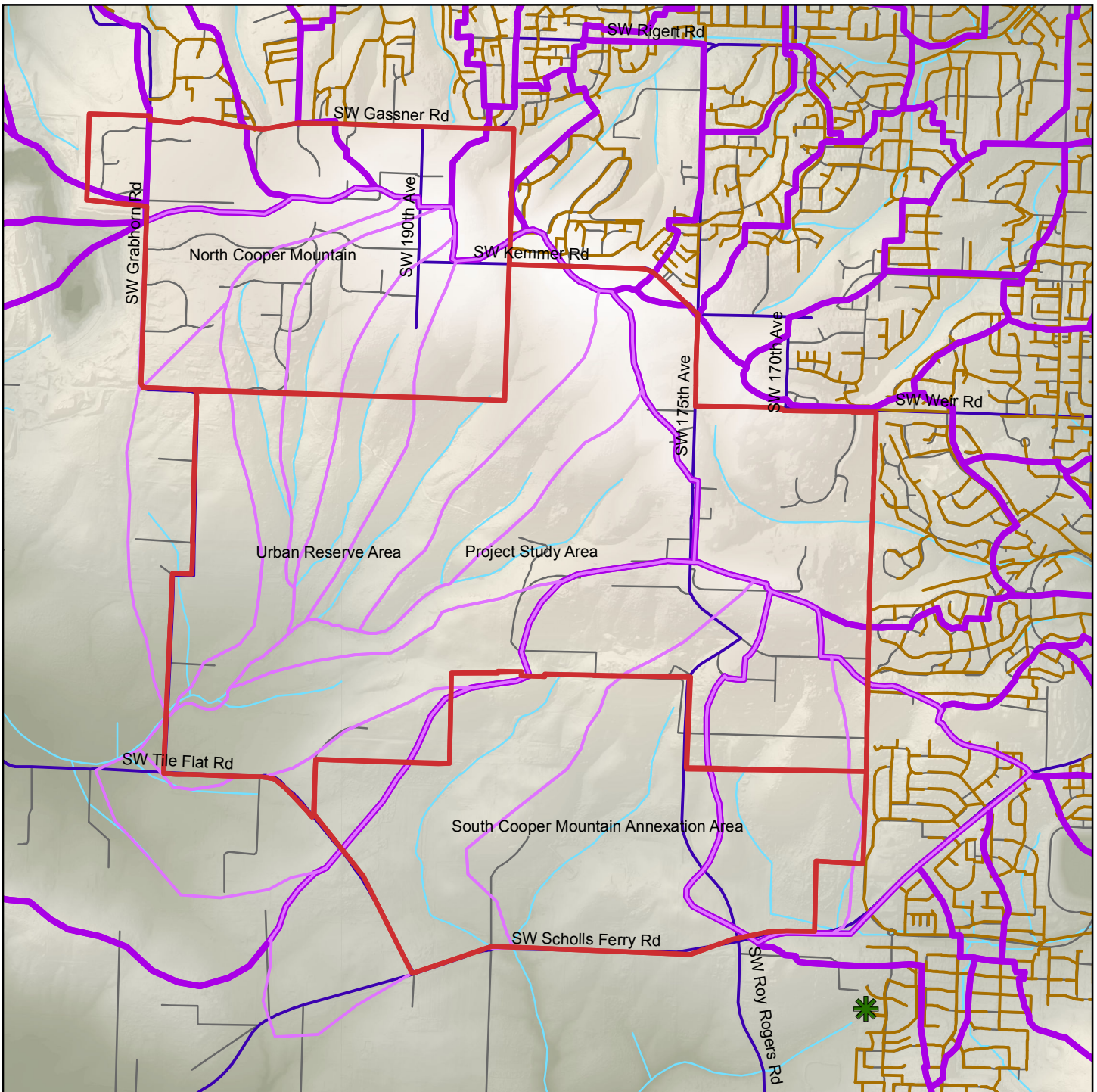
The City is in the final stages of design development of the Phase 1 - SW Scholls Ferry Road Sanitary Sewer Extension. Construction is anticipated to begin in April 2013. The extension consists of a new 21-inch-diameter sewer line extending approximately 1,650 feet from the intersection of SW 175th Avenue/SW Scholls Ferry Road to a manhole located approximately 90 feet south of SW Scholls Ferry Road. The future Phase 2 extension will connect the 21-inch-diameter line to the existing system in SW Barrows Road. The following table lists four (4) service laterals extending to the north that are intended to serve the South Cooper Mountain Annexation Area.

STRUCTURE	LOCATION	PIPE SIZE inches	FULL FLOW CAPACITY cfs	DEPTH feet
COB MH "C1"	125' west & 45' north of SW 175 th Ave/SW Scholls Ferry Rd intersection	8	0.94	6.7
COB MH "M1"	10' west & 60' north of SW 175 th Ave/SW Scholls Ferry Rd intersection	12	2.73	8.4
COB MH "E1"	450' east & 25' north of SW 175 th Ave/SW Scholls Ferry Rd intersection	12	2.99	17.4
COB MH "D1"	1,080' east & 25' north of SW 175 th Ave/SW Scholls Ferry Rd intersection	12	2.73	8.9

Attachments:









South Cooper Mountain Existing Sanitary Sewers
South Cooper Mountain Sanitary Sewer Connections

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South Cooper Mountain Existing Sanitary Sewers

Legend

-  Pump Station
-  Sanitary Sewers
-  SCM Arterials
-  Streets
-  Streams
-  SCM Subbasins
-  CWS Subbasins
-  South Cooper Mountain Study Area

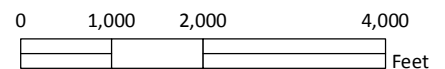
Prepared By: David Evans and Associates

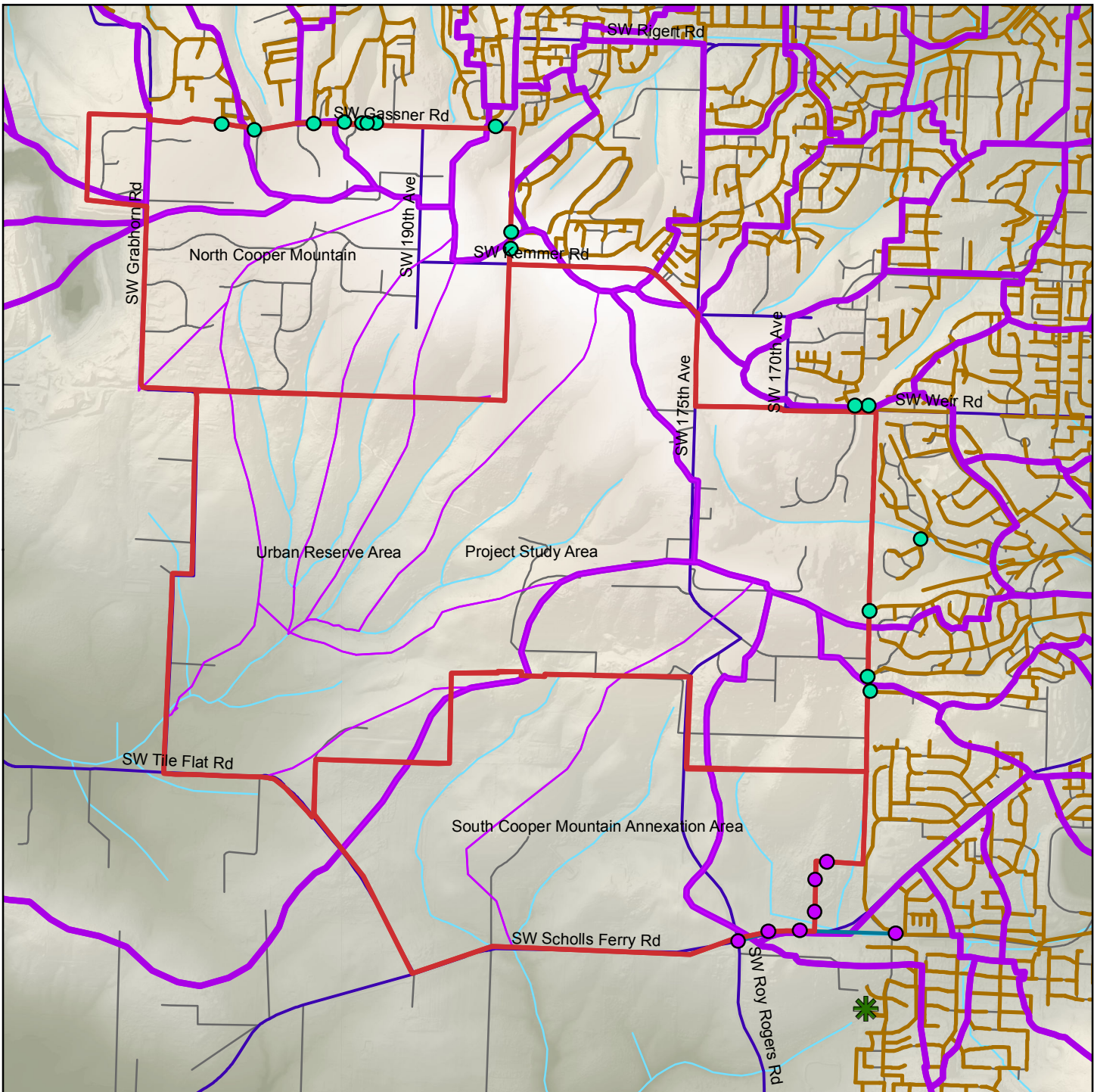
Date: 4/16/2013

Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3601 Feet Intl

DISCLAIMER












This map is intended for informational purposes only. It is not intended for legal, engineering, or surveying purposes. While this map represents the best data available at the time of publication, the City of Beaverton makes no claims, representations, or warranties as to its accuracy or completeness. Metadata available upon request.





South Cooper Mountain Sanitary Sewer Connections

Legend

- | | | |
|---|--|--|
|  Sanitary Sewer Connections |  New Scholls Ferry Manholes |  SCM Subbasins |
|  Pump Station |  SCM Arterials |  CWS Subbasins |
|  Sanitary Sewers |  Streets |  South Cooper Mountain Study Area |
|  New Scholls Ferry San. Sewers |  Streams | |

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